

AMERICAN BEE JOURNAL



46th Year

CHICAGO, ILL., MAY 10, 1906

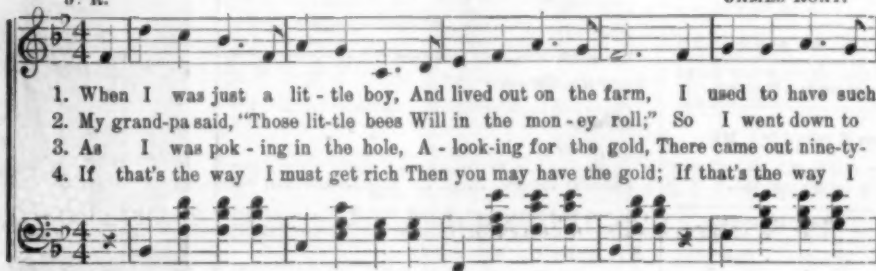
No. 19

The Humming of the Bees.

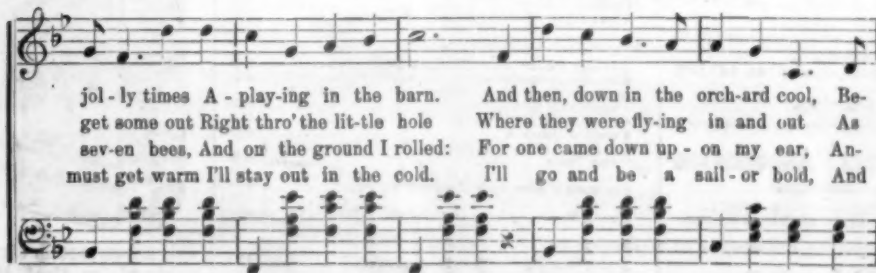
J. R.

Solo and Chorus.

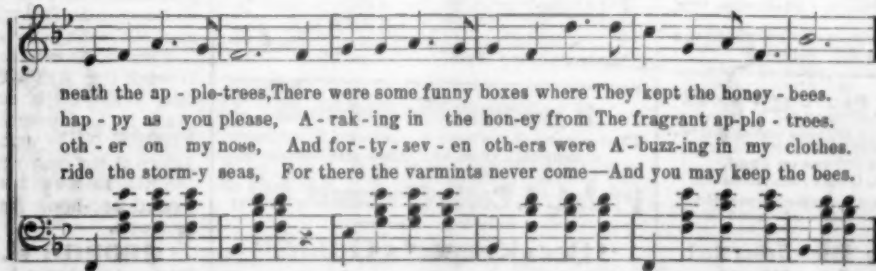
JAMES ROAT.



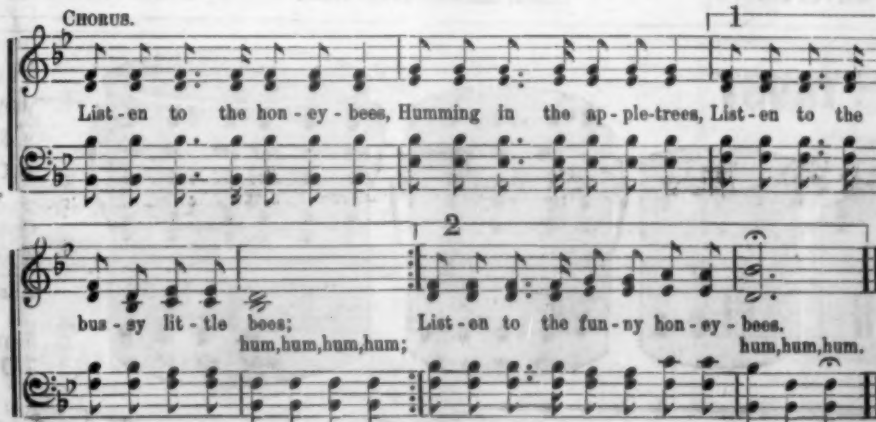
1. When I was just a lit-tle boy, And lived out on the farm, I used to have such
 2. My grand-pa said, "Those lit-tle bees Will in the mon-ey roll;" So I went down to
 3. As I was pok-ing in the hole, A-look-ing for the gold, There came out nine-ty-
 4. If that's the way I must get rich Then you may have the gold; If that's the way I



jol-ly times A-play-ing in the barn. And then, down in the orch-ard cool, Be-
 get some out Right thro'the lit-tle hole Where they were fly-ing in and out As
 sev-en bees, And on the ground I rolled: For one came down up-on my ear, An-
 must get warm I'll stay out in the cold. I'll go and be a sail-or bold, And



neath the ap-ple-trees, There were some funny boxes where They kept the honey-bees.
 hap-py as you please, A-rak-ing in the hon-ey from The fragrant ap-ple-trees.
 oth-er on my nose, And for-ty-sev-en oth-ers were A-buzz-ing in my clothes.
 ride the storm-y seas, For there the varmints never come—And you may keep the bees.



CHORUS.

1
 List-en to the hon-ey-bees, Humming in the ap-ple-trees, List-en to the
 2
 bus-sy lit-tle bees; List-en to the fun-ny hon-ey-bees.
 hum, hum, hum, hum; hum, hum, hum.

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PUBLISHED WEEKLY BY
GEORGE W. YORK & COMPANY
 334 Dearborn Street, Chicago, Ill.

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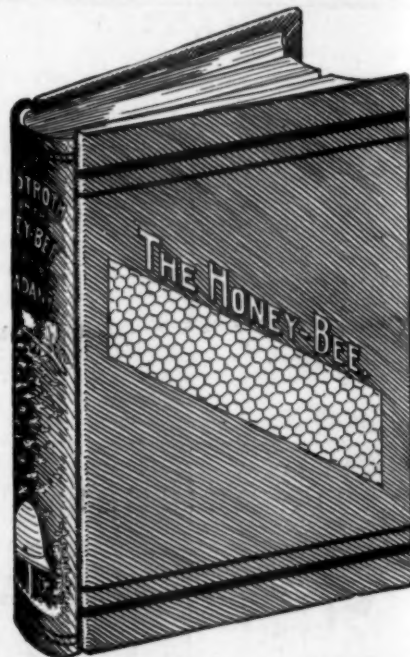
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In addition to continuing the several interesting articles by Alexander, and other noted contributors, which are running in GLEANINGS IN BEE CULTURE, the publishers announce as a special feature for the remaining issues of the year, a series of articles on the CONTROL OF SWARMING FOR COMB-HONEY PRODUCTION. These by bee-keepers who have experimented to the point where experimenting is done, and the crown of success has been awarded.

If you have not seen the first installment of this series, send in your name for a three-number trial subscription, which will be given free of charge. The April 15th, May 1st, and May 15th numbers will be mailed to you, and by June you will undoubtedly be so interested you will want to take a six months' subscription at least. The special price of which will be 25 cents.

If you choose to remit at once, make your request for the above numbers in addition to the regular issues for six months beginning June 1st, and we will send them free.

GLEANINGS IN BEE CULTURE
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GOODS IN A HURRY

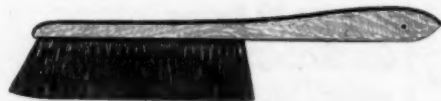
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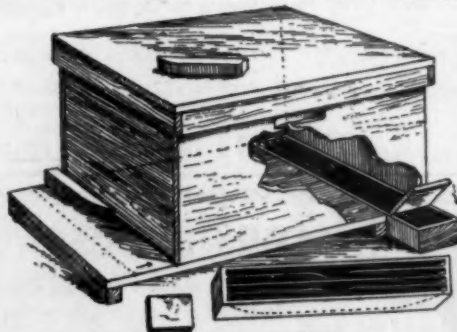
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AMERICAN BEE JOURNAL

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GEORGE W. YORK, Editor

CHICAGO, ILL., MAY 10, 1906

Vol. XLVI—No. 19



Editorial Notes and Comments

Prospects Good "In This Locality"

In the region round about Chicago—and that may take in a radius of many miles—there is nothing in the horoscope to make bee keepers feel blue. The mild character of the winter has left the roots of white clover unharmed, and nothing short of a killing drouth will prevent a carpet of white when time comes for the bloom. Of course, there is always the possibility of a poor yield even when there is the carpet of white, as it was last year, but bee-keepers are an optimistic lot, and will have the pleasure of expecting the best at least, so long as there is any chance for expectation.

The weather in March was severe, but bees were mostly in the cellar during that month, and since then the weather has been of the most favorable character.

Perhaps a Valuable Reminder

"Along about this time," as the almanacs used to say, look out for reminders to order early whatever may be needed in the bee-supply line.

We will never forget the awful rush for hives, sections, etc., during the season of 1903. We were then in the bee-supply business, and at the same time acquired some valuable experience. And, fortunately or unfortunately, survived to tell the tale. The frantic rush for bee-supplies that season, which began early and continued late, was something not soon to be forgotten by all concerned. Even the factories could not turn out the goods fast enough. And those bee-keepers who delayed ordering until just about the time they actually needed the hives, etc., must have lost much honey, and some bees.

In view of the annual rush for bee-supplies that comes almost every year during May and June, we wish to remind our readers that it is better to order *early*, and thus have the supplies on hand *before* they are needed, rather than not to have them in time, or be compelled to wait until the dealer can reach your order and the railroad train bring them to your station.

Be wise and also forehanded, by ordering your bee-supplies *at once* if you have not done so already.

Look Out for Nectar-Dearth After Fruit-Bloom

While fruit is in bloom there is generally enough coming in for daily needs, yet daily needs are great, and it is wise to make sure that abundant stores are in the hive. In some places in the North there is no break between fruit-bloom and white clover, but in most places there is a decided gap. At this time stores are melting away rapidly, owing to the large amount of brood to be fed, and if there is no

overplus when the dearth after fruit-bloom comes there is great danger that the queen will cease laying. Let the dearth continue long enough and not only will laying cease but all the unsealed brood will be destroyed.

Suppose a colony has nothing ahead during fruit-bloom—just living from hand to mouth—and fruit-bloom closes with nothing in the larder. Figure up what it will mean if laying ceases entirely for only a week, and only unsealed brood is destroyed. It is probably a very moderate estimate to say that it will make a difference of 10,000 bees to work upon clover.

The moral of all this is to make sure that plenty of stores are in sight at the close of the fruit bloom. If the break is long enough, it may even be advisable to feed a little every other day, so the bees may not take into consideration the necessity for retrenchment. Abundance of stores in the hive will be sufficient for a short dearth without any feeding, but not if the dearth be sufficiently long.

Davenport's Control of Swarming

We have written to Mr. C. Davenport, of Southern Minnesota, several times, trying to induce him to describe his method of controlling the swarming of bees, but have not succeeded in persuading him to do so. In reply to our last request, he wrote as follows, under date of May 2:

MR. GEORGE W. YORK—

Dear Sir:—I have decided not to give my method for the control of swarming free to all the bee-keeping world. For, as I have said, if it becomes known to all it will most **SURELY** GREATLY increase the amount of honey produced. And for this reason I think it would prove a curse instead of a benefit. I much regret if anything I have written will cause the American Bee Journal to suffer as you intimate. Surely nothing of the kind was intended.

Bees have wintered exceptionally well, but the spring so far has been about the most unfavorable I have ever known. There have been but a very few days fit for the bees to fly. This morning it is nearly down to the freezing point, with a fierce north wind, heavy, low-hanging clouds, and it looks and feels as if there might be a snow-storm.

C. DAVENPORT.

We trust the foregoing will satisfy those who have written to us, asking that we induce Mr. Davenport to tell his secret as to the control of swarming. However, we have no doubt there will be others who will discover it, and give it to the world, and thus be entitled to the honor. Mr. Davenport will then be the loser. But he must decide for himself in the matter, and has decreed to withhold his secret.

National Convention at San Antonio

The National Bee-Keepers' Association will hold its annual convention Nov. 8, 9 and 10, 1906, in San Antonio, Tex. These dates occur at a time when the Texas Fair is in progress, and low rates will be in force, locally, for several hundreds of miles out of San Antonio, and, at the same time, there will be home-seekers' rates available from other parts of the country.

W. Z. HUTCHINSON, Sec.

We are glad that the time and place of the next National Convention have been settled. Now all can begin to plan to attend. It will be the National's first meeting in the far South, and it will be a splendid opportunity for Northern bee-keepers to visit that interesting portion of our great country. There should be no difficulty in getting a big car-

load of bee keepers from North and East to take the trip together from Chicago, as the round-trip rate will be only \$25, leaving here on Tuesday, Nov. 6. There will be home-seekers' rates every Tuesday until the end of November.



Miscellaneous News & Items

The Progressive Bee-Keeper, published for many years by the Leahy Mfg. Co. at Higginville, Mo., has been purchased by The Helpful Hen, of Topeka, Kans.—a new monthly publication devoted to poultry, bees and pigeons. Mr. R. B. Leahy, founder of the Leahy Mfg. Co., recently passed away, also.

The Humming of the Bees—words and music by Mr. James Roat, of Canandaigua, N. Y.—is very appropriate just now. By placing it on our first page it will doubtless be sung by thousands of bee-keepers, and also enjoyed by them. We can furnish extra copies of the song, on single sheets, for 10 cents each, postpaid; or 3 copies for 20 cents (stamps or silver). Address all orders to the office of the American Bee Journal.

J. D. Forsyth, a bee-keeper of Orange Co., Fla., when on his way to Nebraska, last week, made this office a brief call. He had 30 colonies of bees, and during the orange bloom, which began April 1, he secured about 70 pounds per colony. He sold it all in his home market, the most of it going to Northern tourists who had been spending the winter in "The Land of Flowers." Doubtless they took some of it home with them, as they were about to return to the North.

Appendix to Dr. Miller's "Forty Years."—All who have the first edition of "Forty Years Among the Bees" should also have the Appendix which appears in the new edition, issued in April. The complete new 344-page book, bound in cloth, is sent postpaid for \$1.00; the Appendix alone for 10 cents. Or, the book and the American Bee Journal a year—both for \$1.80; the Appendix and the American Bee Journal a year in advance, \$1.00. Send all orders to the American Bee Journal office.

The San Francisco Earthquake and Fire are again referred to in the following from Mr. W. A. Pryal, who suffered quite a good deal of loss thereby. Last week we published a brief postal card extract from him, but in this Mr. Pryal goes into detail a little more:

OAKLAND, CALIF., April 24, 1906.

DEAR MR. YORK:—You have had my recent postal. I'm sure. Besides, you read the news of our calamity. From what I can learn, the Eastern papers exaggerated it. 'Twas bad enough, to be sure, but why lie about it? It seems in the matter of "doing" an earthquake or a fire story, those paper-men have to keep as far from the truth as they do when they are dealing with bee and honey stories.

But the 'quake was big, but not bad—not as bad as reported, by a whole lot. I had a letter to-day from an Eastern cousin. She imagined, from the paper reports, that we were doomed—that the cities hereabouts were entirely ruined. Why, bless you, the sky-scrapers are all standing, with hardly the loss of a stone; but some of the poorly-constructed wood or brick buildings went down, and these mostly on the filled portion of the city. Most of the water front, and some other portions, were filled in. In the '50's and '60's lots of the sand-hills were graded to fill in the bay and boggy places. These portions of the city are consequently unstable.

It is not known how many were killed by the earthquake. There may have been several hundred. It was the fire that was awful.

No one was allowed to get into the city for some days. I got on two boats the morning of the 18th, in hopes of getting over to attend to my affairs, but, with others, was ordered ashore. So my office was blown up, and burned. My loss, individually, to clothing, books and household articles that I had stored there, as also my interest in the copartnership, fixtures, etc., is considerable. I did not move over permanently when I came here nearly a year ago, but lately I decided to send all my effects to this side of the Bay, and had them pretty much all packed to send over.

The 17th was my birthday. Before coming over that evening I hastily packed up 7 or 8 of my works on bee-culture, and brought them home. Some 5 or 6 I left behind. Before that I had brought over others. I lost those 5 or 6 bee-books, a lot of volumes of Gleanings and the Bee Journal, besides about 200 other volumes—about half of my library. If I had gotten over I should have saved them, and a lot of other things.

We lost 2 typewriters, 5 desks, etc. Well, they are all gone with the other things that went to make up the biggest fire in the history of the world.

San Francisco is to be rebuilt on a grand scale—a plan that will make it the most modern and finest city in the world. If they keep out "graft" and saloon politics, the city will be a paradise.

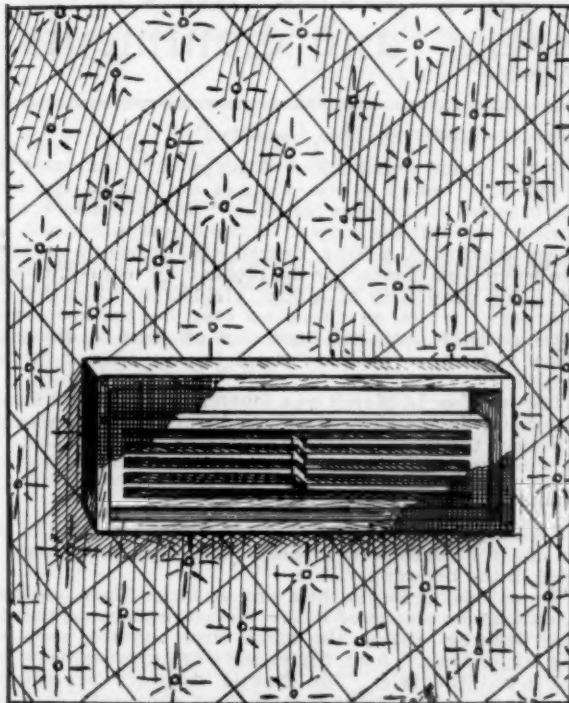
The fire has made Oakland hum, and it will spring up to importance. It is on the right side of the Bay, and can't help growing; and, still, San Francisco has the best water frontage. It's the center of the Pacific shipping interests, and always will be, I think.

W. A. PRYAL.

We thought the foregoing authentic report would be of interest to our readers. Of course, all will learn the fuller details in other sources. It would not be appropriate to use more space in a bee-paper, we think, to describe the terrible calamity further. We hope what bee-keepers may have been affected will soon recover from their loss. The manner in which the whole country has responded is indeed encouraging, showing that there is genuine sympathy and generosity still in the hearts of the people as a whole.

Feeder for Spring Feeding.—A. W. Swan, of Centralia, Kans., sends one of his spring feeders, which is made something like the Miller feeder, but on a smaller scale. Here is what he says of it:

I have arranged the best feeder for spring feeding that I have ever tried. I send one under separate cover by this mail. Place the feeder over the brood-frames, and put on an empty super and the cover. To



keep the bees warm, place a cloth of some kind over the feeder. When you wish to feed, simply raise the quilt, pour in the feed, and cover up the feeder, and your bees are not disturbed. And no bees fly in your face.

A. W. SWAN.

A hole is cut in oilcloth a little smaller than the feeder, 4x11 inches; and then the oilcloth is tacked to the bottom edges of the feeder. A wire-cloth is tacked on top of the feeder, through which the feed is poured. As will be seen from the picture, the bees can come up from below and get to the feed, but can not get out anywhere, as the oilcloth and feeder cover all the top of the brood-frames. For feeding small quantities it is a fine arrangement. Of course, an empty super must be on the hive, in order to have room for the feeder and packing. In fact, the oilcloth and feeder could be put in place in the fall, when preparing the bees for winter. Then it will be ready to feed at any time in the spring.

Mr. T. F. Bingham, of Farwell, Mich.—the well-known Bingham bee-smoker man—reports a fine trade so far, and that it promises to continue. He also writes, under date of April 30, that his bees have wintered well.



Contributed Special Articles

Mice, Rats, Chipmucks, Squirrels, and Honey

BY G. M. DOOLITTLE.

I SEE by the American Bee Journal that both Mr. Hasty and Dr. Miller "entertain some doubts" about mice eating honey. I looked carefully for some proofs regarding those doubts, for something to show that I was wrong, and for some reasons which led them to doubt, but neither of them give any proof or reasons for their doubting my statement that, "The house-mouse eats the honey, and does not touch the bee as food."

Mr. Hasty says, "I think the house-mouse rarely eats honey except when near to starvation—but sometimes peels the cappings off for pastime, when time hangs heavily on his hands. However, poor mouse does face starvation at close range pretty often, in which condition he naturally has to eat anything he can get." After admitting that much, I cannot see why Mr. Hasty "entertains some doubts" that the house-mouse eats honey, for he virtually admits that it does, though he qualifies it by saying that it is only when "near starvation" that it does so. But when not near starvation it "peels the cappings off for pastime, when time hangs heavily on his hands." Glad to learn this. But you will note that Mr. Hasty is very guarded in what he says. Instead of giving any proof for any of this, he prefaces it with "I think." Well, nearly all of us think good thoughts sometimes; and sometimes those which are not well-grounded.

But it will be noticed that the good Dr. Miller is still more guarded and shrewd about his "some doubts," for he does not even venture an "I think." He proposes that Mr. Hasty conduct an experiment to prove that his doubts are correct. Then he takes all the "thunder" away from Mr. Hasty's "I think the house-mouse rarely eats honey except when near starvation," and wants that gentleman in conducting the Doctor's proposed experiments, to pile corn, oats, wheat, barley, grass-seed, pumpkin and squash seeds, etc., mountain high all about the mouse, the only exception made in this epicure diet being that it shall have no sweet except honey.

This makes me think of the way resorted to, to prove that an old soldier would not eat "hard-tack." They piled pork and beans, roast beef, sausage, pie, doughnuts and cake all about him, and then put two or three of the hard-tack down deep in a bucket where he could just squeeze his hand in if he got it, and then sat down to watch him behind some bushes. Soon he tried all the goodies—goodies to this soldier—and ate of all till he needed nothing more, except exercise, when he went for the bucket, fished out the hard-tack, and went to throwing them at a mark he had set up.

So Dr. Miller wants Mr. Hasty to provide the mice with all they can possibly eat, and besides give them "a new comb containing a little honey, none of it sealed, and none of the cells well filled, and then let him report to us whether the mice have torn down any of the cells to get at the honey, and whether they have torn down for mischief any of the cells that do not contain honey." Oh! Doctor! Mice are not like an old soldier. When they have eaten till they are full, they generally lie down and go to sleep. And then, the places where they congregate are not apt to have "food in abundance" therein. As Mr. Hasty says, the majority of the time the mouse faces starvation; and at such times it eats honey, as Mr. H. allows.

My article on page 120, which called out this matter, was written about mice troubling bees in *winter* by getting into the hives, and therefore carries with it the idea that the mouse must live in the cellar with the bees, or in the out-door hive with them. We do not put an "abundance" of mouse food in such places here in York State, whatever they may do in Illinois.

But now to the reasons for what I said regarding the house-mouse eating honey: I supposed that my honey-room was mouse-proof, till one day I looked at some fancy section-honey I had standing on a platform therein, when, to my sorrow, I found several places where the capping had been peeled off the surface of the combs in these nice, fancy sec-

tions, just as Mr. Hasty says the house-mouse will do "for pastime when time hangs heavily on his hands." I took these sections and placed them on the hives again, leaving those that were all right just where they were. As some children had been in the shop and honey-room the day before, I thought the work was done by them; yet I did not see why children should do work in that way. I left the door of the honey-room open while I went into the room where I write articles, for something, which I did not readily find, leaving the door of this room open also. I was detained longer than I expected, and upon turning around to go out, I saw a mouse run across the shop floor and through a small hole in one corner, which apparently led into the honey-room. Thinking I might catch him I tip-toed to the other corner of the shop, where I could look into this honey-room through the open door. Nothing was in sight for several minutes, when the mouse carefully came up on the platform where the honey was.

I was all interest now, for I believed that here was the culprit, instead of the children. The mouse came up to the comb in the section, smelled of it a moment, when with an upward motion of his head he chipped off the capping to two or three cells, when he put out the tongue and went to lapping and eating the honey. This he continued to do till the honey was lowered enough in the cells so that the wax in the sides of the cells touched his mouth, when he went a little to one side and chipped off some more of the cappings, beginning to sip the honey again. I did not wait longer, but drove that mouse out in a hurry, stopped the hole and set a trap near it, baited with squash seeds, and the next morning I found that mouse in the choker-trap, having passed beyond the condition of wanting honey or anything else.

A year or two later I left some frames of sealed honey standing on the shop floor over night, and the next morning I found many larger places with the capping off and the honey licked off from under where the capping was. I said, "More mice." Still it seemed as if there must have been a lot of them to do so much work in one night. I went into the writing room, leaving the door open, as it was warm weather, and sat down to write an article for one of the bee-papers. When nearly half through, I heard a little noise on the shop floor, so I kept still and watched. Soon a big rat appeared, and cautiously went up to the frames of honey, smelled of the comb, and then began chipping off the cappings the same as the mouse did, only taking off much more at each bite, when he began to sip the honey. I watched him till he had taken the capping off in several places, sipping honey from each place, as soon as the cappings were off; when a little stir from me caused him to "scoot" in a hurry for his hole (which he had dug under the wall). This rat was more cunning than the mouse, for it took me a week to catch him, which I finally did by putting a cloth over a steel trap, and putting some honey, in bits of comb, on the cloth.

Then, we had a chipmuck—sometimes called striped squirrel and ground squirrel—that came to live in the bank near the house, as our home is near the woods. We thought much of him, and he soon got so he would climb all over me, take corn out of my hand, let me stroke him, etc. One day a friend of mine and myself were in the shop when he came in the door. The friend said, "See that chipmuck." I said, "Yes, he is our pet."

While we were talking the chipmuck went up to a comb of honey I had brought into the shop a short time previously, and began gnawing off the cappings and eating the honey. This pleased my friend immensely, so I let him eat what honey he wished, when he went out. But that was almost the spoiling of that chipmuck for me, for he would dodge into the shop every chance he could get, and finally dug holes under the wall, and became a great nuisance, till one day a neighboring cat got him. My wife was very sorry, but I did not know whether to be sorry or glad.

Then we had a red squirrel that came down to us from the woods, and he became a pet. In fact, several came, and we had all sorts of shows when the little ones were old enough to play. They would climb the screen-doors, chase each other about the porch, climb into my pockets and all over me to get things I carried about in my coat and pants' pockets for them. They finally found out there was honey in the shop, and gnawed holes to get in, and became a worse nuisance than any of the rest, one even getting drowned in the tank of extracted honey. My wife declared that the honey had to be thrown away, but I told her that I did not think it would hurt the bees any if we used it for feeding them.

Now, Messrs. Hasty and Miller, I have given you the

reasons and grounds for my knowing that the house-mouse, rats, chipmunks and red squirrels all eat honey, and unless you have some *positive* proof that they do not do so in your locality (?), your confidence need not be shaken in the matter that "Doolittle is usually accurate." Borodino, N. Y.

Purity of Yellow-Banded Bees

BY HENRY ALLEY.

JUST what constitutes purity in the yellow races of bees but few bee-keepers seem to know. When the late S. B. Parsons, of New York, imported the first yellow-banded bees from Italy, the inexperienced bee-keeper supposed that the bees were very yellow, and that all queens and bees bred from imported queens would be handsomely marked. But we were all disappointed, and queen-breeders were not alone in discovering that the so-called Italian bees were hybrids, and only a race of black and yellow bees crossed or in some way mixed in blood, and it was found impossible to rear clear-yellow queens, or uniformly marked worker-bees from any queen imported from Italy. This fact alone was enough to condemn them as hybrids. The young queens were marked from a solid black to striped and a rich leather color.

Very few bee-keepers of the present day know to what extent we poor queen-breeders were abused by our customers, and yet we were doing the best we could with the stock we had. When a customer had received a queen, all went well until the time arrived for the yellow bees to appear, and then the trouble commenced. The young bees were found to be marked with anywhere from 1 to 3 bands. We were accused of having our queens mated to black drones, etc. The fact was, all our young queens were mated by drones from the same mother the young queens were reared from. The drones were black enough, I assure you. Not even this inbreeding process improved the color or markings of the bees. American queen-breeders were not long in "catching on" to a way to improve the uniform markings and color of both Italian queens and bees, and it was the American queen-breeder who fixed the standard of purity of the Italian bee.

American queen-breeders soon commenced to select the brightest queens and drones for breeders. In the course of a few years thereafter the Italian bees were more uniform in markings, and thus was the standard of purity fixed, and much yellower queens and bees were produced. American bee-keepers are not indebted to the bee-keepers of Italy for the beautiful yellow bees we have. It is a fact that the bee-keepers of Italy continue in the same old rut, and will not, or can not, learn anything from the American queen-breeders. We find that to-day the imported queens from Sunny Italy are no improvement on those sent to America 45 years ago.

It does seem to me that the Italian bee-keeper, who some 15 years ago copied and printed my entire book of 180 pages on queen-rearing and sold it as the production of his own brain, and really forgot to mention in connection therewith my name, ought to have found some points in the work that would have led him to produce better queens and bees than those that are sent from Italy to America.

We got the 5-banded bees by inbreeding, but that process destroyed the vitality of the bees. The 5-banded business has been carried too far, as many bee-keepers have found to their sorrow. The 5-banded bees are beautiful to look at, and that one feature comprises their only good quality. I have contended for many years that the yellow bees of Italy are not native of that country. Like the gypsy and browntail moths now spreading out over New England, and which are reaching out each year farther and covering more territory all the time, so did the yellow races of bees of other countries reach out and take in the country of Italy. The yellow was mixed with the black and that is why we get only hybrid queens and bees from Italy. Here is a point: I brought into this country the first Carniolan queens. I commenced at once to rear queens from this stock. I noticed that many of the young queens had a decided coppery color, particularly on the under side of the body. Many of the bees from the young queens were marked by one or two yellow bands. I found that the tendency of the color of these bees was to yellow, with each successive generation. Every batch of young queens were more yellow than the previous ones. "Yes," says some one, "got mixed with the Italian." No, they did not. Had any one queen been mated and met an Italian drone, one-half at least of the bees so crossed would have been marked by yellow bands. I am sure none of the Italians in my yard were crossed by the Carniolan drones. Both of these races were kept a long distance apart.

I continued to select the yellow queens from the imported mother, and have them fertilized by the lightest colored drones, and soon I had a fine race, or strain, of yellow Carniolan bees.

In Carniola there are two strains of bees—the steel gray, and the yellow bees. The latter are considered much superior to the gray strain, and are called Adels, which means *superior*. This is how I got my present strain of Adel bees, only I bred them up from the dark Carniolan queens in the first place.

Mr. Frank Benton, who spent many months in Carniola, says he never saw a colony of bees in that country that did not have more or less yellow-banded bees. Now, considering that the tendency of the Adel strain of yellow bees is to a brighter color instead of to a darker, as the Italians will surely tend if left to themselves, haven't I some foundation for my opinion as to the origin of the Italian bee?

E. R. Root says in September 1, 1905, *Gleanings*, that if the Italian bees are left to themselves they will run back to a black bee in color. The Cyprian and Holy Land bees are the only true and pure yellow-banded bees. All other yellow bees came down from them. Only by careful breeding can the standard in markings of yellow bees be kept up.

Most bee-keepers will have the yellow bees. If all the desirable points go with the color, then let us have the yellow bees. Color without inbreeding is what is wanted. Only by selection can the color be kept to the highest point.

I have experimented for nearly 45 years in trying to produce a beautiful yellow bee that combined all the desirable points. What I have tried to do is not only to improve the color, or purity, but to breed up a strain of bees that are hustlers for honey, non-swarming, non-stinging, and that will winter in any climate. My present strain comes pretty near covering the above points.

I was at a meeting of bee-keepers in Boston, in March, 1905, and heard one of the speakers advise those present not to buy and introduce yellow races, as they would store no honey in the sections, but when they got strong enough to work in the sections they would swarm out. Now, isn't it a fact, that of the millions of pounds of honey produced in America nearly all of it is gathered and stored by the yellow races of bees? Where can a colony of pure black bees be found in America?

The same person who gave the above advice, for the first time in his life commenced to rear and sell yellow queens the past year. To be consistent, he should have reared and sold black queens.

I have had my present strain of yellow-banded bees the past 20 years, and never have had a swarm issue from them.

Then there are some strains of bees that surely swarm too much. Of course, such bees will store no honey, not even enough for their own use. Then there are strains of Italians that swarm very little, but they store the honey and are the bees for profit and pleasure.

In my experience with bees I found a man who had 12 colonies of beautiful bees in his yard. He did not want them and sent for me to buy them. "How much for the lot?" said I. "Take them out of the yard—no matter about the price. They are worthless and never have made any honey." As I could use them in nuclei, I took them home.

So much for the Italians.

The Cyprians came to us next. We all tried them. They would breed to color and not run back, but what were these bees good for? As honey-gatherers they were worthless, and I was not long in ridding my yard of them.

Then came the Holy Land bees. They proved about as valuable as the Cyprian, and much like them, but were no better. I can't say that in disposition the Cyprians and Holy Land bees were worse than the Italians generally.

Then came the Punic bees—a bee as black as coal; in fact, nothing could be blacker in color. They were about the same honey-gatherers as the last two spoken of. In disposition and activity they were fairly good. I see that one lonely bee-keeper keeps his advertisement of the Punic in one of the papers.

And now we have the Caucasian bees. What of them? The United States Government had these bees to give away. The people at Washington, who have these bees for free distribution, say they are good honey-gatherers and possess all the good points that bees should possess; that they do not sting, etc. What is the object of the Government speaking so highly of these bees unless it is as they state? It can't be to increase the sale of them, as there are none for sale. The people who condemn them, most likely do not have Caucasian bees in their purity, while at Washington they have the bee in all its purity, and we can take what they say of it as being true. My advice to those who want these bees is to try them

for themselves. That is the best way to settle the matter of worth and value of the Caucasians.

In conclusion, I wish only to say that all the yellow races that have come to us from the warm climates have proved to be worthless. Only the Italians have stood the test. In the test for 45 years the Italians, in my experience, are as good as we want. I mean, by "the Italians," the hardy yellow-banded strains of bees.

Essex Co., Mass.

10—Dadant Methods of Honey-Production

BY C. P. DADANT.

I HAVE already described how we came to use large hives and the extracting system. I will in another article tell about the management for the crop. But before I go on, I wish to say to the reader that I am not trying to push this hive. Those who have Langstroth 10-frame hives can produce honey and succeed with them. Even those who have 8-frame hives can succeed by following methods similar to those of Dr. C. C. Miller, with whose system I lately became acquainted, and who is certainly one of the most thorough comb-honey producers. But for the production of extracted honey on a large scale by the methods that give the least labor, with the least swarming, I believe there is none that will produce as good results as the hive of which a cut was given on page 344. This hive is not patented. It is not difficult to make in any carpenter shop. The frames are the only part of the hive that requires circular saws, and they may be bought at small cost. Hives of this system, if well made, will last for 30 years. That is our experience.

Our hive is not very portable. It is rather heavy and cumbersome, and does not admit of tiering up bodies. The only thing in it that is expected to tier up is the super, and we have had enough of these on top of one another to raise the hives to almost a man's height. A friend who has read my previous articles asked me the other day: "What sort of a derrick do you use to lift one of those hives and carry it around?" Well, the truth is, we don't carry our hives around like so many bushel boxes. We don't think of moving our hives of bees around, from one place to another, any oftener than our chicken coop, our barn or our dwelling. There are times when it is necessary to move, but those times are to be avoided, whether it be bees, chickens or human beings.

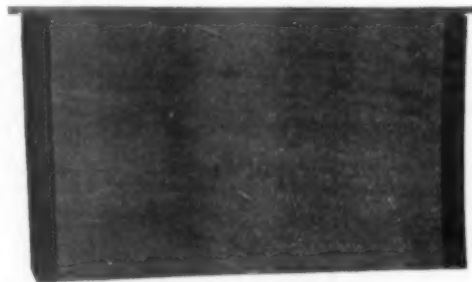
One thing you may depend upon, these hives are sufficient for a large colony, and we get large swarms from them, because the bees are never cramped. When the European agent of the Root Co. (Mr. Bondonneau) came to America, he visited me. He had seen our hives in Europe, but only in comparison with the old straw skep. He was astounded to find colonies so strong, and said to me that he had not seen such strong colonies at any other apiary he had visited in America, or Europe, either. It was in the month of August, and the colonies were strong indeed. Don't understand that we always have strong colonies. We have reverses as well as any one else. There is no royal road to success in anything. It takes perseverance and attention to get results and no hive, no system, will give the slovenly and careless a positive success. But the base and foundation of successful bee-keeping is to keep colonies strong and this may be done only by having room enough in the brood-chamber for bees, brood, honey, and pollen, in plenty.

It is held that there is something in location, as to the advisability of using large hives. It would be an error to deny the influence of location on any system, but I do not think location has as much to do with size of hives as management has. The least number of manipulations is required when the largest hives are used.

Two enquiries have just reached me concerning the division-board or dummy, which we use in our hives. The dummy used by most small-hive apiarists is just a thin board put in at the side, which is removed to give space when handling the frames. This, to my mind, is the least necessary use of a dummy. The reason why we call these boards "division-boards," is, they were intended originally to divide the hive into several compartments, and that we use them yet for separating the part of the hive that is used by the bees, from the empty space, whether large or small, at the side. True, in an out-apiary, where no divisions are made, where the colonies are all in good shape, the dummy is hardly ever moved. But when we have weak colonies, or have made nuclei, we dislike to place them in a large brood-chamber. It seems to us they feel about like human beings housed in a church or in a large hall—they want to

have some sort of cozy corner where they can huddle together and keep warm.

The ordinary dummy is made free from all sides, so that the bees may not glue it fast. We don't want our dummies to allow the heat to pass off around each end, for, in that case, they are only equal to an ordinary comb in a frame. We think there is loss of heat in this space on the ends, and so we devised an end to our dummies that may fit without ever being tight, and without ever being glued fast in a way that would cause a jerk and a jar when the dummy is moved. This is achieved by nailing a strip of oilcloth or enamel cloth on the end of the dummy, so that it may make a soft half-circle, which rests well against the end of the hive, but which gives, and gets loose, at the least exer-



tion. In this way we have a dummy that effectually encloses the colony of bees within the limits we desire. The bottom of the dummy might be fixed in the same way, but heat never goes down—it rises—so there is no deperdition of heat at the bottom, and we find it advisable to leave a bee-space at the bottom, so that the most active bees make the police of the empty room at the side.

When a small swarm or a nucleus is confined to, say about half the usual number of combs, until it gains strength, when combs are added to suit its need, the dummy is placed up against the last comb and there remains until more combs are added. A small colony may winter on six of our combs. The space behind the dummy is then filled with dry leaves. There is no necessity of explaining to the reader the advantage of such a wall of warmth-keeping material. The hive always faces south, with us, so that this heavy wall is on the most windy side, which is always west or northwest here. The hive being double on the back, the bees are very well protected against the high winds, and we ascribe a good part of our success in wintering to this method. We may say all we please about a cluster of bees keeping warm anywhere if they have enough to eat. We all know that there is a limit to their endurance, and we know, also, that the colder they are the more they consume. So it is a good plan to shelter them as much as possible in out-of-door wintering.

The space behind the dummy, when the colony is reduced in number of combs, may be used for feeding. Sections partly emptied or a saucer full of feed, or any kind of feeder may be put down behind the dummy in easy reach of the bees. They soon find it, and if the entrance is reduced so as to leave only the opposite side open, there is no danger of robbers.

We make our dummies of $\frac{3}{4}$ lumber. We find that they are stronger than thin ones, and there is but little expense to them, as they are made of refuse or knotty lumber, and are cleated on the ends to prevent splitting. We leave a full-frame space for the dummy, and this gives us a good, big space when it is removed.

In another article or two, I will describe our method of producing extracted honey.

Hamilton, Ill.

A Queen-Bee Free as a Premium.—We are now booking orders for Untested Italian Queens to be delivered in May or June. This is the premium offer: To a subscriber whose own subscription to the American Bee Journal is paid at least to the end of 1906, we will mail an Untested Italian Queen for sending us one new subscription with \$1.00 for the Bee Journal a year. Or, we will renew your subscription to the American Bee Journal for a year, and send a fine Untested Italian Queen—both for \$1.50. Now is a good time to get new subscribers. If you wish extra copies of the Bee Journal for use as samples, let us know how many you want and we will mail them to you. Address all orders to the office of the American Bee Journal.



Canadian + Beedom +

Conducted by MORLEY PETTIT, Villa Nova, Ont.

Good Advice for Beginners

Writing to beginners in *Farmers' Advocate*, E. G. H. has the following good advice:

The first hives should be bought from a regular manufacturer of bee-supplies, and for a beginner it might be advisable to have one of them made up at the factory, so he can see just exactly how the pieces should go together. After he learns how to handle the hives and frames, and realizes the importance of absolute accuracy and uniformity, he may make the hives himself, if he is a fairly handy man with a saw and plane.

The Langstroth hive is generally recognized as the standard, and is a safe hive for any beginner to adopt. There is no patent on this hive or any of its parts, so that any one is at liberty to make it if he wants to do so. Bees in this style of hive will sell from 10 to 20 percent higher than in any other size hives. E. G. H.

After so many clippings from Canadian papers I have no doubt our readers in the United States will be glad to see something from their own press. We have the following from the *Detroit Free Press*:

BEES GATHER HONEY IN WINTER.

People who visited St. John's cemetery, Sandwich, Friday, tell of a strange sight which they viewed at a newly-made grave. An abundance of cut flowers were laid on the grave, and within a few minutes the blossoms were almost covered with honey-bees.

The bees were as active as in July or August, and hummed about the blossoms while sucking out the honey in as business-like manner as they do when flying around rose blossoms in the summer-time.

When the bees secured their fill of the sweet nectar from the plants they flew away to the hive, and were coming and going until the sun began to sink in the west. The bees deserted the flowers when the air became chilly, but yesterday they returned to the attack, and their hum could be heard through the cemetery until the rain started in the afternoon.

Those who witnessed it are unable to understand the phenomenon unless it be that the warm weather has caused the bees to awake from their winter's nap, and they think that the spring has come.

At last the question, "Do Bees Hibernate?" has been solved. The *Free Press* reporter has demonstrated that it is possible for bees to "awake from their winter's nap!" But what we would like to know is where to secure such cut flowers. Would be glad to set a vase of them in front of each hive in the spring to make sure of a good honey crop!

Elementary Directions in Bee-Keeping

E. L. Colpitts, in the *Maritime Farmer*, quotes elementary directions to beginners from Leaflet 128, of the British Board of Agriculture. Besides the usual advice, he mentions among useful articles for a beginner to have "a straw skep for taking swarms," and "a super-clearer for clearing bees from section-rack or supers." I must confess my ignorance as to what a super-clearer is like. [It is what your cousins in England call our "bee-escape."—EDITOR.]

THE HIVE.

There are many patterns of hives, all made to take the one British standard frame. A simple one should be chosen possessing accuracy of workmanship and soundness of material, so as to stand exposure to weather for years. The outside of the hive should be thoroughly painted, to keep it rain and damp proof. It must be placed on its stand in a spot sheltered, if possible, from the cold north and east winds, and with a free flight for the bees in front. Space should be left behind it for easy access, so that all manipulations can be carried on from the back; this avoids irritating the home-coming bees.

These points are so good as to bear repetition. The hives to be "simple," "standard," "accurate," "painted." The location to be "sheltered;" clear in front for flight of bees, and clear behind for work. I do not know when I have seen beginners advised to keep away from the front of the hive. They are supposed to know that—but visitors do not, and why should beginners?

The beginner is advised to buy a first or "head"

swarm, and bring it home in a box to be placed in a new hive.

By this means he will avoid all the pitfalls of disease or lack of condition, which only a practised eye can detect, but which beset the purchaser of second-hand colonies.

Directions are given for hiving the swarm then:

If the swarm has been a long time on its journey, or if the weather is bad on its arrival, the bees will be greatly benefited by being supplied with half a pint of warm, thin syrup, given through an opening in the quilt, and by means of the bottle-feeder.

CONDITIONS CONDUCTIVE TO SUCCESS.

It is important that the beginner should clearly understand the principles that underlie successful bee-keeping. A colony of bees consists of a queen, a large number of worker-bees, and (during summer) a certain proportion of drones. The strength of a healthy colony depends upon the vigor and laying power of the queen, which is at her best in her second season, i. e., a queen hatched in June, 1905, will be at her best in May, 1906, and should be replaced by a young one in 1907, either by natural swarming or by re-queening. Queens may be purchased or reared by the methods described in text books. The economy of a hive depends, first, on the keeping up of the warmth of the brood-nest (by means of the heat evolved from the bodies of the clustering bees) to such a point as will stimulate the queen to lay eggs, and enable young bees to be reared; secondly, on the feeding of the queen, the nursing of the brood, and the cleansing of the cells for the queen's use; thirdly, on the collection of pollen, water and nectar for the brood; lastly, on the building of storage combs and collecting nectar for the future supplies of honey.

The first three of these conditions must be fulfilled before the last can be begun; therefore, it is only by means of a large and vigorous surplus population that a colony can gather enough stores for its future use, and provide also for the bee-keeper. The aim of the bee-keeper is to keep his colonies strong, for a weak colony is always unprofitable.

The next consideration is, that the crowded condition of the hive should be secured at the right time, i. e., at the honey-flow.

Those who propose to keep a few colonies of bees only, may proceed in the manner outlined above; any one intending to keep a large number of colonies is advised to get a season's instruction in a well-managed apiary before laying out capital in the business.

The "Wood Binder" for Bee Journals

One scarcely appreciates little conveniences before giving them an actual test. The Wood Binder is one of the handiest things I have on my table. It keeps the year's numbers of the *American Bee Journal* right at hand, and in order for immediate reference.

And the cost is only 20 cents!—[Send for it to the *American Bee Journal* office.—EDITOR.]



Southern + Beedom +

Conducted by LOUIS H. SCHOLL, New Braunfels, Tex.

Order of Bees in the Cluster

Hardly any bee-keeper will think that the bees of different age will have to occupy a certain place in the hive; nevertheless we can prove that in this respect, too, a certain order is necessary, and that it prevails in the hive. This order corresponds with the order of the brood. The youngest bees prepare the food for the queen and for the youngest larvae, as the queen with every new brood period lays eggs near the oldest capped brood, and just in those cells from which young bees had gnawed out. She is always near these young bees, and receives the necessary chyle or blood from them. So we see the queen surrounded by young bees (as shown in the "A B C of Bee Culture" under "Queen") which feed her. But the queen does not remain there in the same place. She moves around in circles from comb to comb, and everywhere she meets young bees of just the proper age on the empty cells, which have cleared and warmed their own cradles, and so prepared for a new baby.

The young bee, which has just fed the queen, remains in the same place with the eggs and keeps them warm; and after 3 days, when the small larvae are out of the "egg-shell," they are fed by the same bees in the same way as a short time before the queen was fed. These larvae grow and need more food every day; finally the food is not

digested any more, and chyme is fed. With the larvæ the young bee is growing older, too. From a chyle-producing bee it has changed to a chyme-producing one; and now, when the larvæ are old enough, the bee secretes wax and builds cappings over the cells. It becomes a building-bee now, and may find employment in building combs outside of the brood-nest, or for transporting and ripening honey until it is old enough for gathering water, pollen and nectar.

As we have seen, the young bee is held back at first to the place of its birth, till, with the larvæ, it grows older; and if these larvæ do not need it any more it strives to come to the surface of the cluster, at first working as comb-builder, etc. In about 3 or 4 weeks it dies, worn out by hard work, when another bee is found on the alighting-board ready to take its place. As the material for nourishment flows from the outside to the center, going from one bee's body to another till it is consumed by the queen or by the larvæ, so the young bees, not necessary in the brood-nest, are striving to get to the surface or to the outside to find other employment, generation after generation, till they find an honorable death in the fields.

CHYLE AND IMPULSES.

We know that the different organs of the bee will take different parts from the blood for nourishment. In this way all the organs get their proper nourishment, and the blood is used up. The products of this process are either breathed out by the tracheæ or removed from the blood by the malpighian vessels.

A certain organ may especially need fat; then the remaining blood will be richer in albumen and sugar-like substances; if not, other organs will use up this surplus. In this way the composition of the blood of the bee may vary according to circumstances.

As long as the bees are close together in the winter cluster, and feed themselves on the winter stores of honey, and probably very little pollen, all the blood produced is used up to preserve the life of the colony and to produce the necessary heat.

As soon as a great activity takes place, probably caused by the first flight in spring, induced by a warm day (1), every member of the colony will produce more chyle or blood than is necessary for the preservation of its own body, and hereby the progressing impulses are incited. The young bees especially are the producers of heat, and for this purpose fat and sugar in the blood are used up in larger quantities than albumen; consequently the blood will get richer in albumen. According to the laws of diffusion, the blood will now take more sugar and fat from the chyle in the stomach than albumen, because the tendency is to equalize the two fluids. So the chyle, too, will get richer in albumen, and this rich chyle, if fed to the queen, will excite the ovaries, and egg-laying will commence soon afterward. In this way the breeding impulse is aroused in the whole colony. The queen needs more nitrogenous food to produce the necessary chyle; the few young bees will have plenty of consumers for the produced chyle, and the queen will lay a small patch of eggs only in the first brood-period, and all the produced chyle is consumed by the larvæ and the queen.

As soon as young bees gnaw out of the cells they will produce chyle, too, if pollen is present or gathered by the field-bees; but a single bee can feed perhaps 5 or 10 larvæ, and may be more. The first 3 weeks we may have 100 young or nurse-bees; and then it will be easy for the queen to lay 1000 eggs during these 3 weeks, which will be afterward, as larvæ, consumers of the chyle produced by the 100 young nurse-bees. Inside of the next 3 weeks we shall have 1000 nurse-bees, and they need 10,000 eggs. In the third brood-period 100,000 eggs or larvæ would be necessary; and as we know that no queen is able to lay so many eggs, necessarily an increase of the blood takes place. The young bees get surcharged with blood; and we can observe this, as we see their abdomen generally more distended than with field-bees of the same colony.

The next result of this condition is that the wax-glands are excited. It is proven by Schoenfeld that much blood is necessary for the secretion of wax, and this is one of the reasons why bees can not and do not always build combs. As for wax-secretion and comb-building, if fat and sugar are used, albumen will get to be still more diffused through the blood, and hereby another impulse is aroused—the drone impulse. We can always observe whether comb-building is going on in connection with a surplus of albumen, for then drone-combs will be built by the colony. This is the explanation why swarms will build worker-combs as long as the queen can lay a sufficient number of eggs for the young bees accompanying the swarm; and why the same

swarm commences to build drone-cells where the queen can not lay enough eggs, or when young queens are gnawing out of the cells. It is the explanation why small colonies or nuclei generally build worker-combs. They do not have enough young bees so that a surplus of albumen can be present in the blood.

As the chyle has always the same composition as the blood, or nearly so, the queen, too, receives a chyle very rich in albumen, and so the same impulse is aroused in her body, and she will lay drone-eggs in the drone-cells, which, if other conditions prevailed, she would neglect entirely (2).

The young drone-larvæ need a food very rich in albumen, and so the increase of blood is diminished for some time by comb-building and by rearing drones.

Further, we know that a drone needs 24 days for development, and in the last 2 weeks the cell is capped and will need no food at all. Meantime the number of young bees has increased every day, and the increase of blood will be greater and stronger.

As in early spring, the surplus of albumen was transferred to the ovaries, so this surplus causes at that time, and at that state of development, a desire for more ovaries, as the old queen and the larvæ are yet unable to consume all the chyle produced by the many young nurse-bees. Quite a number of queen-cells are built, and the young larvæ in them are good customers for the albuminous chyle. So we see the abundance of food causes an ever increasing number of food-producers. The contradiction between the multiplied supply of nourishment and the limit of egg-laying power of the queen is finally solved by the swarming act.

By this theory we can explain many mysteries in bees. This theory explains why and how swarming can be prevented, if we in some way avoid a surplus of albumen, or, as we said, the increase of the blood. The more a theory can explain the facts we have observed, the greater will be the probability of its correctness. This theory does more: By reasoning from it we can incite and retain certain impulses to our liking by certain manipulations; and if we make use of them correctly we shall succeed. This fact makes it nearly certain that the theory is correct.

Many problems remain to be solved as yet; and in some points later investigations and closer observations may correct some parts of the theory; but that it is correct in the main points I am fully convinced, if I consider in what an easy way it gives us an insight into the very life of the honey-bee to such an extent as we never had before.

Cibola, Tex.

L. STACHELHAUSEN.

(1.) Other circumstances, too, may cause a larger consumption; for instance, if the colony is much disturbed or exposed to cold. Under such circumstances I found in strong colonies large patches of brood, even in January, in a cold climate—Germany.

(2.) This will need a correction or completion, as it does not explain why a queen will lay a few eggs in drone-cells, and rights from them go over to the next worker-cell and lay an impregnated egg in it. It is not probable that the impulses change so quickly. Possibly the size of the cell has something to do, after all, in fertilizing or not fertilizing the egg.



Our Sister Bee-Keepers

Conducted by EMMA M. WILSON, Marengo, Ill.

Weak and Queenless Colonies in Spring

By this time it ought to be an easy thing to tell which colonies have normal queens and which have not. If combs of good worker-brood are not present a colony is doomed. To be sure, a queen might be sent for and given to it, but that is not what the average sister will do, especially if she is a beginner. The first thing she most likely will think of doing is to give it some brood to let it rear a queen of its own, and it will probably take her years to learn that that is just the thing she ought not to do. It is a bad thing to do for more than one reason.

One thing that is enough to condemn it, if there were nothing else, is that the queen reared in such a case will be very poor; generally so poor that she is not only worthless, but worse than worthless, because she will keep a lot of bees dancing attendance upon her only to fail in the end.

Another thing just about as bad is the real damage to the colony from which the brood is taken. To this the reply is likely to be, "Taking one frame of brood from a col-

ony is not going to hurt it very much." Very likely, too, this may be said by some one of many years' experience. Unless one has given especial attention to the matter one is not likely to realize the harm. Early in the season, while more or less cool weather prevails, a weakling, with only bees enough to cover 2 or 3 frames of brood, will be at a stand-still until warmer weather comes, if, indeed, it does not grow weaker. On the other hand, a colony covering 4 or more frames of brood will walk right along. So the frame of brood given to the queenless colony must be renewed from time to time, and will not be increasing; whereas, if left in the stronger colony, it will be doubling up all the while.

The right thing, then, is to break up all colonies that do not have good laying queens early in the season. That will make less hives containing bees, but there will be more bees, and at the end of the season more colonies.

Honey Good for a Discolored Neck

A yellow, discolored neck is anything but adorable, particularly when a woman wishes to appear in a décolleté frock. A simple home-made remedy is made thus: Take 1 ounce of honey, 1 teaspoonful of lemon-juice, 6 drops of oil of bitter almonds, the whites of 2 eggs, and enough fine oatmeal to make a smooth paste. Apply this at night, covering with a bit of old, thin, soft linen. Three or four applications will bleach the surface to a beautiful satin whiteness.—Chicago Record-Herald.

Planting Flowers for Beauty and the Bees

Planting flowers for bees is not likely to amount to very much, unless planted by the acre. Yet when the sisters are planning their posy beds they may as well give some little precedence to the flowers that yield nectar. It is at least a pleasure to see the busy little visitors working on them. Mignonette is a prime favorite. A good-sized bed of crimson clover is a beautiful sight. The crocus is one of the earliest favorites. Phacelia is considered a great honey-plant in some localities, and its modest purple blossoms make it worthy a place in the flower-bed.

Green Hellebore

What is the common and botanical name of the enclosed plant? The root is fibrous. The bees were thick about it when first in bloom, but now they seem to have deserted it. No one here seems to be acquainted with the plant, and we are curious to know its name. It has been in bloom for several weeks, and the same flowers continue for a long time. It is a perennial plant, and hardy.

Centerville, Ind., April 25. KATE V. AUSTIN.

[The plant is the Green Hellebore—*Helleborus viridis*—which was introduced from Europe some years ago and is gradually spreading westward. The juice of the plant is somewhat poisonous, but the bees seem to get something good from the blossoms.—C. L. WALTON.]

Br. Colomban's Honey-Cakes

INGREDIENTS.—Three pounds of honey, 3 pounds of flour, 1 ounce of powdered ammonia, a small teaspoonful of ground cinnamon, $\frac{1}{2}$ teaspoonful of ground cloves, 6 ounces of orange-peel cut very small, and 4 ounces of sweet almonds cut small.

DIRECTIONS.—Pour the honey in a copper or enameled pan, and set on a stove or quick fire. When it boils, draw it aside and remove the scum (as honey boils up very quickly, great care must be taken not to let it boil over). Then pour the honey into the vessel in which the paste is to be made; leave it to cool, then add flour and other ingredients except the ammonia, which latter must not be added until the flour and honey have been mixed up, and the paste has become quite cold.

In preparing for use, place the ammonia in a cup, pour a few drops of cold water and stir it well, so as to form a thick paste, then mix it up with the rest. Then take a piece of the paste, roll it out into a cake not over $\frac{1}{4}$ -inch thick, and cut up into convenient sizes as desired. This done, put the cakes on a flat tin (which must be greased beforehand) and bake from 12 to 15 minutes in a hot oven.—British Bee Journal.



Mr. Hasty's Afterthoughts

The "Old Reliable" as seen through New and Unreliable Glasses.
By E. E. Hasty, Sta. B. Rural, Toledo, Ohio.

Preparing Watering Places for Bees

A water pan under shelter, and covered with floating cork-chips, and kept warm by a lamp underneath. Surely, that ought to be satisfactory—and there's no denying that the end in view is important, quite important enough to justify the time and cash laid out. The rock on which you will split (if you do split) may, perchance, be a catechism gourd that may spring up over your Jonah booth. How many bees am I getting to come here? Lots of them. How many still go elsewhere? Don't know—I'll try to find out. Yes, and when you find out that three-quarters of them still persist in going elsewhere, in spite of everything you can think of to draw them, will you not let a natural indignation have play, and throw the whole thing overboard? Otherwise you may incline to keep adding inducements from time to time. A little salt helps. Hard to get the proper amount just right. Too much drives them away instead of attracting them. Willow twigs in the water have a recommendation 2000 years old, and theoretically ought to be beneficial.

Bees feel severely the battle all living creatures have to fight—the life or death struggle with septic microbes. Need all the antiseptic they can secrete, and all they can collect also. The water they choose very generally has second-hand antiseptics in it, secreted by the digestive organs of cow or pig, and cast out with the excrement after serving its original purpose. Whether we can follow this hint in preparing water to tempt them I hardly know. Looks possible. Imaginable that water kept warm day after day might breed microbes at such a rate as to be unfit for the purpose. As to the willows, they contain the original of salicine, which is related to quinine, having similar properties in a less degree—power to repress microbes being one of them, I think. Strikes me that solid bunches of willows the size of one's wrist might be cut short off into very short lengths; then keep several sections in the watering pan standing on end. Page 291.

That Hive of Bees Struck by Lightning

The "brood of chickens struck with lightning" serves a more or less useful turn as popular proverb. Hardly think that "hive of bees struck with lightning" would be any improvement. Interesting, however, to hear that a stroke heavy enough to produce the wreck shown on page 285 left enough of the bees alive that the colony went on. Say, somebody get up a dynamo that will just kill *Bacillus alvei* and not quite kill the bees.

Selling Honey

Thanks to R. C. Aikin for his reasonings in letting the same common-sense, which is best in selling fruits and vegetables, have free course in selling honey also. But I eat a grain of salt with this claim that most customers will be pleased with the taste of honey that has been through the solar extractor. Say, rather, that some will. And even that "some," I guess we would better educate their blunt tastes than take advantage of them. Page 293.

Marketing Comb Honey

And now Mr. Greiner advises us to wrap our cases of honey in nice-looking paper! Might we not stick on a few chrysanthemums here and there outside the paper? and some little sponges wet in perfume? But one of the statements he makes I haven't the heart to poke small fun at—too sad, and too hopeless of adequate remedy. "Not one man in 50 knows how to handle honey properly." What are we going to do about it? Just hand our honey over to the market, and the market will hand it over to them—and let them cellar it, and freeze it, and bang it, and ram their fingers through it, and pile it corner to corner in a round basket—and all the other capers at pleasure. Page 294.



Doctor Miller's Question-Box

Send questions either to the office of the American Bee Journal, or to Dr. C. C. MILLER, Marengo, Ill.

Dr. Miller does not answer Questions by mail.

Buckwheat Honey in Brood-Chamber Darkening Surplus Honey

What would you do with buckwheat honey that has been in the hives all winter and up till the time white clover blooms? I had some in the hives last year and the bees carried it up to the top story and it darkened a lot of my surplus honey. ONTARIO.

ANSWER.—The circumstances must have been exceptional that would have allowed buckwheat honey to remain in the hive over winter and then to be carried up into the surplus apartment. It could only be where the combs were so crowded with honey that not enough was used up before harvest to allow the queen room to lay. In that case I would take out a frame or two of the heaviest, and give it to the lighter colonies. If all were too heavy, I'd extract some of the heaviest combs.

Albino, Banat, and Cyprian Bees

Will you kindly publish all you know about the Albino and Banat bees, good qualities and bad, markings, color, etc.? I see them advertised, and I have heard of them. Are they a new bee in this country? I would like to know what you think of the Cyprians, as I have one queen this spring, and if good I will breed from her. WISCONSIN.

ANSWER.—Albino people are those who have very light hair, skin and eyes, the coloring matter being lacking, and it is generally the case that an Albino, whether man, animal or bee is more or less lacking in physical vigor. That does not make it impossible, however, that there might be exceptions to the general rule.

Banat bees I know nothing about. I don't suppose it is a new variety introduced, but merely a name that has been given, for any one can call his bees by almost any name he pleases. I could call my bees "Miller" bees, but that wouldn't make them a new variety.

Cyprian bees are favored by some for crossing, but not many seem to care for them in their purity. They have a reputation for vicious temper, for starting laying workers on very short notice, and for the very large number of queen-cells they start when queenless or preparing to swarm.

Getting a Honey Crop and Then Transferring the Bees

Can I safely run my bees for honey till the middle of July and then put them into new hives with new foundation? Would that give them plenty of time to build up for winter?

Don't say, "Get a book," for I can't just now; but I shall send to you for one later on. MAINE.

ANSWER.—No, I'll not say get a book in order to find an answer to that question, for I doubt that you would find a direct answer to it in any book, and your question is one that fairly belongs in this department.

If you put a colony on foundation the middle of July, and leave it entirely to itself, and if there is nothing yielding honey after that time, you may feel pretty sure there will be nothing but dead bees in the hive the following spring. But you can make it a success by feeding to make up the deficiency. Feed enough every other day to keep up brood-rearing, and enough in September for winter.

No, don't send to me for a book. I don't have books to sell. The reason I constantly urge the buying of a bee-book is not to sell one, but because I know the bee-keeper who has none is standing in his own light. I wouldn't be a good friend of yours if I didn't insist on it.

Stopping Swarming—Finding Queens—Best Book On Bees—Scented Water to Throw on Bees

1. What do you think is the best method to use to stop bees in the act of swarming?

2. I would like to clip the wings of the queens, but don't know how to go at it. What is the best way to find a queen?

3. As there are so many books written on bees, I would like to know which one you think is best.

4. I have heard that bee-keepers have some stuff they put in the water they throw at bees, which has a peculiar smell that makes the bees stop. If this is so, what is the name of it? IOWA.

ANSWERS.—1. When a colony has really started to swarm, it isn't an easy thing to stop the bees. Perhaps the best is to smoke vigor-

ously or to shower heavily with water. But that will not hinder their trying it another time.

2. In this locality we generally look over the frames, one after another, till we find the queen. Care should be taken not to give enough smoke to start the bees running. If they begin once running, the best thing is to close the hive and let them quiet down, not opening the hive until after an hour or more, or trying it the next day. Another way is to lift all the frames out of the hive carefully, putting them in another hive, then look carefully to see that the queen is not left in some corner of the hive; then having a queen-excluder at the entrance of the old hive shake or brush from one of the frames all the bees in front of the entrance, then put the frame in the hive, and proceed in the same way with all the frames. The queen, not being able to get through the excluder, will be found at the entrance.

3. That's rather an unfair question to answer, and a difficult one if not unfair, for any of the leading bee-books are good. If you are going to do much with bees, it will pay you well to get any one of them, and then get others afterward.

4. I don't understand to what you refer. Possibly to throwing water on bees to stop their robbing. In that case, the water will be more effective if carbolic acid is put in it.

Changing Bees from Old to New Hives

I sent for some improved Langstroth-Simplicity hives, and have some bees that I would like to put into the new hives. How would you put them in? ILLINOIS.

ANSWER.—I think I would wait till they swarm, then hive the swarms in the new hive, then 21 days later cut up the box-hives, and if you think best cut out the best combs and fasten them in frames to put in the new hives. It may make less bees in the way if you drum out the bees before cutting up the hives and cutting out the combs.

Using Wood Splints Instead of Wire in Combs

1. Can brood-combs be drawn out during a heavy honey-flow and not sag when using splints on light-brood foundation?

2. What do you think of using splints on wired foundation for extracting and brood combs? Or, do you recommend only medium brood when using splints?

3. I would like to try splints, but I am at a loss where to get some. Do you have them made to order, or do you make them yourself? What kind of lumber? Would Louisiana cypress do? I guess you will smile a little at my ignorance. TEXAS.

ANSWERS.—1. Having never tried it I can not say positively. But I should hardly expect any sagging with light brood foundation, and if there should be any sagging with splints the usual distance apart (about 3½ inches), one or two additional splints in a frame ought to make all right.

2. For extracting there would be a little advantage so long as the combs were new, in having both splints and wires; whether the advantage would be sufficient to pay is another question. For brood-frames the addition of wires could hardly be any better than the splints alone. But if I had the wires in, I should still think it would pay to add the splints.

3. My splints have been made to order, but they can be made at slight expense at any manufactory of bee-supplies or berry boxes where they have machinery for slicing wood. They are made of bass-wood, but I suppose almost any kind of wood would answer. A wood somewhat tough is probably better than one very brittle. I am not acquainted with Louisiana cypress, but should have little fear as to using it.

Yes, I might smile at your ignorance, only I have a good memory, and have a very vivid recollection of the time when I was more ignorant than you are. And if you'll promise not to tell, I'll just whisper in your year that I have on hand at the present moment a big stock of ignorance about bees.

Raising the Hive for More Ventilation

I see on page 370, E. W. Delfendorf advocates the putting of holes or an entrance above the brood-chamber and between the supers. Also T. L. Shawler, on page 363, recommends raising the hive at the bottom when the weather gets warm, to prevent swarming. I can readily see the need of plenty of air and ventilation in hot weather, but would not these many entrances promote robbing? Which would be the better, to raise the hive from the bottom or to raise the super, leaving ¼ inch between the hive and super? KANSAS.

ANSWER.—Contrary to what you might expect, there is little danger of robbing being started when large openings are given in harvest time. I've tried it very thoroughly, and don't think I ever had a case of robbing from that cause. Better raise the hive if working for comb honey, although I have practised also shoving the super forward. For extracted, do both.

Amerikanische Bienenzucht, by Hans Buschbauer, is a bee-keeper's hand-book of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.

Reports and Experiences

Last Season Not a Good One.

I wintered 5 colonies of bees outdoors and 32 in the cellar. The outdoor bees did better than those in the cellar. The past mild winter made the cellar too damp. I lost 2 colonies in the cellar on account of being queenless, so I had to double them up. I have 35 colonies left in good condition.

The year 1905 was not a good one for honey here, although I had 2,006 pounds of honey from 20 colonies, spring count. I would have had more, but ran 6 colonies for comb honey, which gave me only 87 pounds of capped sections. The fields out here were covered with white clover last summer, and there will be a great deal of it the coming summer, as it looks well now.

I have no trouble to sell my honey at 24 cents a quart and 13 cents a pint. That is the way I put it on the market each year, with a nice label.

Herman Heurkens.

Green Bay, Wis., April 9.

Very Early Swarm—Good Prospects.

Did you ever see a swarm of bees in April? I saw one last Friday (April 13), when a large swarm passed over my head near where I was at work in the apiary. They were, no doubt, wild bees, from some tree in the nearby forest, and were on the lookout for a suitable hollow tree as a home. This is something unusual, and my theory of it is that we have had such a mild winter the bees have reared brood and young bees every month. Therefore, when the first honey and pollen came in from the soft maple, they swarmed. My own bees are very strong for the time of year. The young bees are out playing every day, and I think we are going to have an old-fashioned honey crop, like we had in the '80s. I notice there is an abundance of young clover, and if we have a wet spring it will surely yield a big crop of honey.

S. G. Kilgore.

London, Ohio, April 17.

Apiculture in California.

I think it is generally conceded that California is the largest honey-producing State in the Union. I am not far wrong in saying that 9-10 of this honey is extracted. Possibly the short season we have had of late is the cause of so little comb honey produced. In this locality one should use nothing less than a 10-frame Langstroth hive. The entrance in summer should be 1 inch deep clear across the end of the hive. For ventilation I prefer this plan. On hot days raise the lid or cover a little by placing a thin strip of wood about 1/4-inch thick between the cover and the hive, taking it out at night, as the nights are rather cool in nearly all parts of California. This plan, I think, gives better results in this locality than having ventilators attached permanently to the hives.

Last year was a very good one for honey, and the outlook at the present time for a good season is better than it has been for years. Rains have been very plentiful all spring, and at the present time wild flowers of all descriptions cover the hills, and it will be only a few days until black sage will be blooming.

Last year the early honey-flow was stopped at its height by strong, hot winds cooking the flowers, and drying the nectar. These winds were largely caused by oil-wells a few miles north of here catching fire.

M. D. Whitchee.

Los Olivos, Calif., April 19.

Temperature of a Bee-Cluster.

That article of Mr. Doolittle which appeared in the American Bee Journal two or three weeks ago was very interesting, and shows a great deal of

painstaking to arrive at the truth. It is certainly an eye-opener to little fellows like me to know that bees will hold the temperature in the cluster to 63 and 64 degrees when the mercury falls to 32 degrees below zero outside.

One of his observations, however, seemed to puzzle him, and he seemed to be at a loss for an explanation as to why the bees at the bottom of the cluster seemed to be livelier and warmer than those at the top. Tell Mr. Doolittle not to be puzzled at that. I have frequently observed that phenomenon. The explanation is easy, and is as follows:

It is a well-known fact that air, when warmed, ascends. Consequently the strata immediately over the cluster is constantly leaving the bees to the higher parts of the hive, and a good deal of it percolating through to the outside, while the strata immediately under the cluster in its effort to ascend is arrested by the bees themselves and is constantly hugging them with the warmth they have generated. This explains why top packing is the all-important feature of winter protection.

W. T. Cary.

Wakenda, Mo., April 10.

Colonies Weak—Feeding.

The last of March I put the bees out of the cave on the summer stands. I found 7 dead colonies out of 25 put away the latter part of last November, and found some colonies rather light. I put those by themselves, and in January, 1906, I put frames of honey over the brood-nest, which brought them through all right, but I have to feed now, and will have to do so until fruit-bloom comes. Those left are doing very well, and there is brood in all colonies.

Since putting them out the weather has been pretty favorable for bees to have flights. They are now bringing in pollen. Last season bees had only 3 weeks to gather honey in—the last 2 weeks in July and the first week in August—from the white clover and basswood. Bees did well those three weeks. We had no fall bloom.

I took the supers off the first of September, overhauled the brood-chambers, and fed those that needed feeding enough to carry them through until spring, but up to the time I "caved" them the weather was so nice and warm that they were out almost every day. As there was no honey to get, they consumed the honey out of the brood-nest, which cut them short

of winter stores, and this was also the report of bee-men around here last fall.

Walter Irvine, Sr.

Clayworks, Iowa, April 11.

Wintered Fairly Well.

My bees were taken out of the cellar and placed on the summer stands April 7. On taking an inventory I find them as follows: 80 strong colonies, 40 medium, 10 weak, and 3 dead. I consider they came through the winter in quite good condition.

Bees are now more energetic than they usually are in the spring. This is noticed by the way they tumble out and into their hives—just as if they were in a race to see which one could carry in the most pollen and honey. This, with their loud hum, is an indication that they came through the winter in a healthy condition.

I am now making preparations for out-apiaries. I will make 300 10-frame hives this fall, and self-spacing frames for all of them; I will run the out-apiaries entirely for extracted honey.

If we have a good year my plans will hold good, and I will be prepared to build a large bee-cellar another year, with a "cage" over it! Then I will open the door, for a "bird" to fly in.

Frank Stoflet.

Auburndale, Wis., April 16.

Not a Good Bee-Country.

I have been keeping bees for the last 50 years and have always taken a deep interest in them and have usually had fair success, although not always. I have taken the American Bee Journal a good many years, how long I do not know, but ever since I knew there was such a journal printed, and to its teachings I owe the greater part of my success.

This is not a good bee-country, but it is getting better every year. I came here in 1868, and at that time the people thought bees could not live here, but I was bound to try, and for the first 10 years they gave me no surplus, except one year, and then only very little. However, they do quite well some years, as I think the largest yield I ever had was 72 sections full—I called it 72 pounds.

I have Italian bees, and try to keep them pure and strong, but I never have yet seen more than 5 frames full of brood at one time in any one hive. I use the 8-frame hive. I wonder if I always have poor queens. I have



An Italian Queen Free

In May or June, 1906,

To Regular Paid-in-Advance Subscribers Only.

We wish to make a liberal offer to those of our regular readers whose subscriptions are paid in advance. It is this: We will send you FREE by mail, in May or June, 1906, an Untested Italian Queen for sending us \$1.00 and the name and address of a NEW subscriber to the American Bee Journal for a year. Or, to yourself, a Queen and Bee Journal a year—both for \$1.50.

We are booking Queen orders for May and June delivery. Will you have one or more? These offers ought to bring in many orders. Our Queens are reared by the best queen-breeders, and give satisfaction.

Address,

GEORGE W. YORK & CO. 334 Dearborn St., Chicago, Ill.

Tennessee-Bred Queens

All from Extra-Select Mothers

3-band from Imported Dark Leather, Moore's Long-Tongue, or my own. Golden from AWS, Doolittle's or my own. Caucasians and Carniolans from direct imported.

AFTER APRIL 15TH.

Italians Before July 1st				After July 1st				CARNIOLANS				CAUCASIANS			
	1	6	12	1	6	12		1	6	12		1	6	12	
Untested	\$.75	\$4.00	\$7.50	\$.60	\$3.25	\$6.00		\$.85	\$4.50	\$8.00		\$.95	\$5.00		8.50
Select Untested	1.00	5.00	9.00	.75	4.25	8.00		1.10	5.50	9.50		1.20	6.00		10.00
Tested	1.50	8.00	15.00	1.25	6.50	12.00		1.60	8.50	15.50		1.70	9.00		16.00
Select Tested ..	2.00	10.00	18.00	1.50	8.00	15.00		2.10	10.50	18.50		2.20	11.00		19.00

Straight 5-band Golden Breeders.....	\$10.00	1-frame Nucleus (no queen)	\$1.50
Select Golden Breeders	3.00	2-frame " "	2.00
" 3-band "	3.00	3-frame " "	2.50
" Carniolan "	3.10	4-frame " "	3.00
" Caucasian "	3.25	1 full colony without queen in 8-frame dovetailed hive.....	6.00

Bees by the pound in light shipping-boxes, \$1.00 per pound.

Select the Queen wanted, and add the price to the above prices.

Discounts on large orders. Contracts with dealers a specialty. No bee-disease has ever been in this section.

13Dtf

JOHN M. DAVIS, Spring Hill, Tenn.

Italian and Caucasian BEES, QUEENS, AND NUCLEI



Choice in me-bred and imported stock. All Queens reared in full colonies.

Prices of Italians in MAY:

One Untested Queen.....	\$1.10
" Tested Queen.....	1.50
" Select Tested Queen.....	1.65
" Breeding Queen.....	2.75
1-comb nucleus (no queen).....	1.15
2 " " "	2.00
3 " " "	3.00

Untested in May; all others ready now from last season's rearing. Safe arrival guaranteed.

For prices on Caucasians and larger quantities, and description of each grade of queens, send for free catalog. J. L. STRONG

16Atf 204 E. Logan St., Clarinda, Iowa.
Mention Bee Journal when writing.

E. E. LAWRENCE

Breeder of Fine Italian Queen-Bees

Send for Price List. Over 30 years' experience.

15-19

DONIPHAN, MO.

ROSE LAWN QUEENS

ANOTHER GREAT OFFER

We wish to mail our new 8-page catalog to 1000 more progressive bee-keepers in the United States and Canada in the next 10 days. This catalog is full of valuable information for bee-keepers, and is the finest ever issued by a Queen-Rearing Concern.

Here's pay for your help: The first 100 persons sending us 10 addresses of bee-keepers with \$1.00 cash, will receive one of our very finest Select Tested "Pure Gold" Italian Queens. We sell them for \$2.00 each; they are worth \$5; every queen a breeder of the highest type of color, gentleness and fertility, line bred to the Rose Lawn standard. If the queen does not suit you, send her back and get your money. That's a fair offer.

This is purely an advertising proposition, and only 100 Select Tested Queens will be furnished at this price. Send on the names and a dollar.

ROSE LAWN APIARIES.

19Atf

Sta. C. LINCOLN, NEB.

Queen Incubator and Brooder—Twin Nucleus-Box

MAINLY FOR QUEEN-BREEDERS

INCUBATOR AND BROODER allow the bees access to the cells and queens at all times. (Patented July 7, 1903.) Price, \$5.00.

TWIN NUCLEUS AND MATING BOX has control of the queen by a 3-hole wheel on the outside, with one hole wire-screened, one hole covered with queen-excluding zinc, and the third hole to regulate the size of the entrance. (Patent applied for.) Price, \$1.00.

CYLINDER CAGES postpaid, each, 10 cents. QUEEN-CELLS, 100 mounted, with sample of Cylinder Cage (sent postpaid,) for 75 cents.

BREEDING QUEENS, after May 1st—Italian, Imported and Golden Italian, and Carniolan—\$2.50 each. Orders booked now and filled in rotation. Send for free Circulars. 7Dtf

ARTHUR STANLEY, Dixon, Lee Co., Ill.

CAUCASIAN QUEENS!

Caucasian Bees are very gentle. They are easy to handle and are, therefore, suited to beginners, timid bee-keepers and to those who keep bees in town. If you want to try this race, or if you want to improve the stock of your Italian Bees, write to

ROBERT B. MCCAIN,

2Atf YORKVILLE, ILL. R. F. D.

The Choicest of Tested Queens

By Return Mail—\$1.00 Each,

From our fine strain of 3-band Italians, that are unsurpassed as honey-gatherers. Try them; they will not disappoint you. Send for price-list.

J. W. K. SHAW & CO.

19Atf LOREAUVILLE, Iberia Co., La.

Bees, Queens and Bee-Supplies

We manufacture standard dovetailed beehives and supplies, cheaper than you ever bought before. Our Queens and Bees stand at the head in quality. Untested, 75c each; \$4.25 for 6, or \$8 per doz. Tested, \$1.25 each; \$12 per doz. Select Tested, \$1.50. Special prices to dealers in large lots on application. State Agents for Dittmer's Foundation. Catalog free.

THE BEE & HONEY COMPANY

(WILL ATCHLEY, Prop.)

Beeville, Bee Co., Texas.

For Queens

Send to JOHN W. PHARR
Berclair, Tex.

He will furnish at the same prices as last year: Tested, \$1; Untested, 75c; 5 for \$3.25; 10 for \$6; 15 for \$8.25; 25 for \$12.50; 100 for \$45. He breeds Golden, Carniolans, and 3-Band Italians. Also 1, 2, and 3 frame Nuclei and full colonies. Prices given on application. Pharr pays the freight, and guarantees satisfaction on all Queens. To do justice and judgment is more acceptable with the Lord than sacrifice.—(Prov. 3:21.) 5Atf

bought quite a number, and when I read of a queen filling 2 hives full of brood, I wondered why mine can't fill one brood-nest. H. D. Black.
Fairbury, Nebr., April 13.

Putting a Weak Colony Over a Strong One.

My bees came through the winter alive, all but one nucleus. I put 9 colonies into the cellar and took out 8 on April 10. I found 4 quite weak, so I thought I would try E. W. Alexander's plan of putting them over a strong colony, with an excluder between the two brood-chambers, only I didn't wait until they had uncapped brood, as he advises doing, but I put them over a strong colony as soon as I took them out of the cellar, and saw that they had queens, but it may not work. However, I don't see why they won't do as well as if they had uncapped brood, as the queens had started to lay. There were a very few eggs in the brood-combs. I will write later and tell how they came through.

My bees are bringing in pollen in fine shape to-day. I am farther north than most of the bee-keepers, but bees do pretty well here; but our springs are later here in northern Wisconsin. Irma, Wis., April 16. V. Goodnow.

CONVENTION NOTICE.

Western Illinois—The semi-annual meeting of the Western Illinois Bee-Keepers' Association will be held in the County Court Room, in Galesburg, on Wednesday, May 16, commencing at 9 a.m. and lasting all day. Messrs. C. P. Dadant and J. Q. Smith have promised to be present and contribute to the success of the meeting. Our meetings have been good, but we hope to make this one better. Galesburg has good train-service, and all bee-keepers in this part of the State should not fail to come. Come, and bring your wives with you. E. D. Woods, Sec.

Galesburg, Ill.

DOOLITTLE & CLARK

Are now booking orders for QUEENS. PRICES:

Untested—1, \$1; 3, \$2.50; 12, \$9. Select Tested—1, \$1.50; 3, \$4; 12, \$14. 1905 Breeders, \$2.50. Select Breeders, \$5. Extra-Select Breeders, \$10. Two-frame Nuclei (without queen) \$2.50; 3, \$7; 12, \$25.

Borodino, Onondaga Co., N. Y.

17Dtf

Please mention the Bee Journal.

Queens A fine Honey-Gathering Strain of Italians and Carniolans, at 75 cents each; 3 for \$2; 6 for \$3.50; or \$6.50 per dozen, for Untested. Tested, \$1 each, or \$10 a dozen.

GEORGE W. BARNES.

17A26t 138 N. Pleasant St., NORWALK, OHIO.

Queen-Button for Bee-Folks



This is a very pretty thing for a bee-keeper or honey-seller to wear on his coat-lapel. It often serves to introduce the subject of honey, and frequently leads to a sale.

The picture shown herewith is a reproduction of a motto queen-button that we are furnishing to bee-keepers. It has a pin on the underside to fasten it. Price, by mail, 6 cents; two for 10c; or six for 25c. The American Bee Journal one year and 4 buttons for \$1.10. Address all orders to

GEORGE W. YORK & CO.

334 Dearborn Street, CHICAGO, ILL.

"It is continuous advertising that impresses the public with the stability of a firm."

"If Goods are wanted Quick, send to Pouder"



BEE-SUPPLIES

Root's Goods at Root's Prices

Everything used by Bee Keepers.
POUDER'S HONEY-JARS. Prompt Service.
Low Freight Rates. Catalog Free.

BEESWAX WANTED

I pay highest market price for beeswax, delivered here, at any time, cash or trade. Make small shipments by express; large shipments by freight, always being sure to attach your name to the package. My large illustrated catalog is free. I shall be glad to send it to you.

WALTER S. POUDER,

513-515 Massachusetts Ave., INDIANAPOLIS, IND.

Mention Bee Journal when writing.

A GOOD BEE-HIVE

Is made of the best grade of White Pine, accurately cut, so it will go together without the use of tools, except a hammer.

Such is the kind of Hives we make, and such is the kind you get when you buy from us.

"It is a cinch" that we make lower prices than you can get from any dealer, as you save the middleman's profit when you buy direct from the manufacturer.

We are Manufacturers, and sell direct to the consumer.

Send us a list of your wants, and let us make you prices.

We guarantee everything we sell to be satisfactory, or refund the money.

We have large stocks of Dovetailed Hives, Sections, Shipping-Cases, Foundation, Veils, Smokers, etc., on hand, and can ship promptly.

Minnesota Bee-Supply Co.,

JOHN DOLL & SON, PROPRIETORS

Power Bldg., No. 33.

MINNEAPOLIS, MINN.

Bee-Keepers' Supplies

LEWIS' FAMOUS BEE-HIVES AND SECTIONS, ROOT'S SMOKERS AND EXTRACTORS, DADANT'S COMB FOUNDATION, ETC., QUEEN BEES AND NUCLEI IN SEASON. Large and complete stock, prompt service. We meet all competition who will furnish first-class goods.

INCUBATORS AND BROODERS

We carry a complete stock of "Mandy Lee" Incubators and Brooders. Don't fail to investigate these machines. The more you know about incubation, the more you will like the "Mandy Lee" Incubator. The "Mandy Lee Brooder" is a complete old hen, all but the "cluck." Our free incubator catalog describes them.

C. M. SCOTT & CO. 1004 EAST WASH. STREET
INDIANAPOLIS, IND. ++ ++ ++
Mention Bee Journal when writing.

How to Build a Telephone Line to Your Farm

FREE We have just published several new books, which we will send free to parties interested. They tell you just how to proceed to build a telephone line to your farm; how to interest your neighbors; how to organize the company, and how easily and cheaply such a line can be built. One of the books describes

Stromberg-Carlson Telephones

the kind that makes rural lines successful. Write for book "How the Telephone Helps the Farmer," and also for the book, "How to Build a Rural Telephone Line." They will furnish you valuable information you can get in no other way. Simply drop us a postal card asking for them, and for any other facts you may desire. Do it today and save delay.

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Saves
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Stromberg-Carlson Tel. Mfg. Co.,
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Ill.

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A. H. REEVES

DISTRIBUTOR OF ROOT'S GOODS FOR

NORTHERN NEW YORK

Perch River, Jefferson Co., N. Y.

19A4t

Please mention the Bee Journal.

Queen-Clipping Device Free!



The MONETTE Queen-Clipping Device is a fine thing for use in catching and clipping Queens' wings. It is used by many beekeepers. Full printed directions sent with each one. We mail it for 25 cents; or will send it **FREE** as a premium for sending us One New subscriber to the Bee Journal for a year at \$1.00; or for \$1.10 we will mail the Bee Journal one year and the Clipping Device. Address,

GEORGE W. YORK & CO.,
CHICAGO, ILL.

The Rietsche Press

Made of artificial stone. Practically indestructible, and giving entirely satisfactory results. Comb foundation made easily and quickly at less than half the cost of buying from the dealers. Price of Press, \$1.50—cash with order. Address,

ADRIAN GETAZ,

45A1f KNOXVILLE, TENN.
J. G. Goodner, of this State, writes me that he "prefers to pay \$25.00 for a Rietsche Press rather than do without it."—A. G.

BANTA Incubators & Brooders



Backed by 14 Years of Successful Use by poultrymen all over the world. No guesswork. They are automatic in regulation and ventilation. Fully guaranteed to give YOU satisfaction. Send for free book. **BANTA-BENDER** MFG. CO., Dept. 26, Ligonier, Ind.

Mention Bee Journal when writing.

"The continuous advertiser gets the bulk of the business, because others are not advertising, and he is."



The Lion Engine

Is sold direct from
FACTORY to USER

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on 10 days test trial.

This engine is no experiment, but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

This engine is of the four cycle type. While the engine is up to normal speed the exhaust valve is held open, allowing free circulation of fresh air in the cylinder. The igniter and intake valve are at rest, therefore are not using gasoline or the batteries.

Our igniter and mixer are of the most simple and reliable character. The gasoline is always properly vaporized and the igniter point never comes together unless a spark is required.

The fly ball type of governor is used, which automatically controls the exhaust, igniter and the gasoline; it also allows the speed to be changed from 100 to 600 revolutions per minute while the engine is in motion—a very superior feature.

LION GAS OR GASOLINE ENGINES

are simple in construction and
EASY TO OPERATE

They are used for all purposes where power is required for operating private electric-lighting plants, small factories, printing offices; farm machinery, such as cream separators, feed-grinders, corn shellers, wood-sawing machines, etc., and for a thousand and one other purposes.

WRITE US A LETTER LIKE THIS:

LYONS ENGINE CO.,
Lyons, Mich.

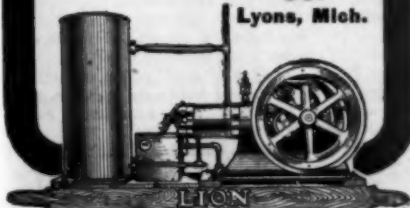
Gentlemen: I am about to purchase a gas or gasoline engine for _____ purposes and wish you to send me full particulars about your approval offer as advertised in American Bee Journal. Yours very truly,

Name _____
Town _____
State _____
Street No. or P. O. Box _____
R. F. D. _____

When writing, please state definitely for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. This information is very important to us. Please remember we send the engine, not the engine agent.

LYONS ENGINE CO.

Lyons, Mich.



Increased Business Compels Larger Space

So we have just doubled our capacity in the building at 141 Ontario Street, where we carry a full line of **POULTRY SUPPLIES** and

LEWIS POPULAR BEEWARE

Catalogs on application. Orders filled promptly at **Factory Prices**. Beeswax wanted—28c cash or 30c in trade.

Italian Bees in modern hives with select Queens for sale. Also Pure Italian Queens.

SPECIAL OFFER ON BEE-SUPPLY ORDERS

Until June 1, 1906, we will give free, on each order for bee-supplies amounting to \$10 or over, a choice of one of the following: A Bingham Doctor Smoker; a Bingham Honey-Knife; or a year's subscription to the Weekly American Bee Journal.

YORK HONEY AND BEE CO.

H. M. ARND, MGR. (Not Inc.)

141 Ontario St., CHICAGO, ILL.

(Phone North 1559.)



THIS KITCHEN CABINET

\$13.95

FREIGHT PAID

A Kitchen Cabinet is the handiest piece of furniture in the house. Think of the steps it will save the woman every day to have all her cooking materials the things she uses most right at hand, within easy reach, without moving away from the kitchen table. This handsome Cabinet is an ornament to any home. It is made of hardwood with antique finish. The cut will give you a good idea of its many conveniences. Height of top from table is 46 in.—full height is in. 4 in. deep. To the left is a space for tea, coffee pot or clock, etc., underneath are four spice boxes made of wood, for pepper, all-spice, cloves, nutmegs; size of each 6x11 1/2 in. Underneath the shelf are two tilting receptacles for salt and sugar, which fit nicely to slide and back as shown in cut. The Cabinet or top has two shelves 1 1/2 in. wide, 24 in. long with glass door. Underneath are three brass hooks to hang utensils on. The base has an evenly balanced flour bin, holding half a barrel, easily cleaned. A tin lined bread box with automatic self-closing door. On the end are two sugar or meal boxes, also one extension drop shelf with automatic bracket. Other drawers for other purposes also a bread board and many other conveniences. Order one today, if it don't suit you in every way, we pay freight back and return your money. We save you money on everything for the home or the farm. Our 100 page catalog shows you how to save.

Ask us about our plan which will save you \$150 to \$250 a year.

\$5.25
This one **Freight PAID**



Write for **FREE** Furniture Catalog

Mention Bee Journal when writing.

Last Chance

Your choice of any two of the following and the Modern Farmer 1 Year for only \$1.25: Pearson's, Cosmopolitan, Gleanings in Bee-Culture, Western Fruit Grower, American Boy, or Kansas Farmer. For \$1.30, Woman's Home Companion, Bryan's Commoner, or American Bee Journal (New only).

Write for Other Clubs. You will need to do this **QUICKLY**.

THE MODERN FARMER,
ST. JOSEPH, MO.

Mention Bee Journal when writing.

BINGHAM
Original Direct Draft
CIGAR
Bee Smokers

4 Largest Sizes Best Burning

Never Go Out
And last from 5 to 21 years

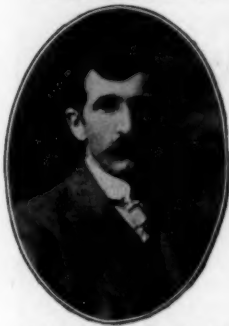
OTISVILLE, PA., Jan. 13, 1904.

Dear Sir:—I have tried almost everything in the smoker line; 3 in the last 3 years. In short if I want any more smokers your new style is good enough for me. I thank the editor of Review for what he said of it. Those remarks induced me to get mine. **FRED FODNER.**

Mention Bee Journal when writing.

Small text on the right side of the advertisement: T. F. BINGHAM Farwell, Mich.

CHARLES MONDENG SECTION MACHINE



is covered by two Patents. With this wonderful invention the cost of making Sections may be reduced to \$1.15 per 1000. If such Machine will interest you, write for further information. Do not write about it unless you mean business.

BEE-SUPPLIES AND QUEENS

My Catalog for 1906 is now ready for distribution. I am the Northern Headquarters for **Adel Queens and Bees**, and good, honest Bee-Keepers' Supplies. If you have not received my Catalog, write for it. Address,

CHARLES MONDENG,
180 NEWTON AVE., N., MINNEAPOLIS, MINN.
Mention Bee Journal when writing.

BEE-KEEPERS

Send for our 1906 Free Illustrated Catalog. Good Goods, Low Prices and Prompt Shipments are what you get if you send your orders to—

PAGE & LYON MFG. CO.
New London, Wis.

Mention Bee Journal when writing.

Have You Passed the Experimental Stage?

Most bee-keepers have been convinced that when time and material are figured, it pays to buy hives, and the best is not only as cheap, but—

The Best Is the Cheapest!

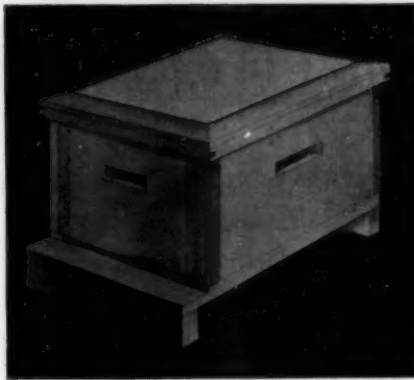
The Elgin Hive excels in many ways—no nails to drive—no dovetails—can be taken apart at any time.

Many are using them. You should be. Write to-day for catalog, etc.

We sell full line of SUPPLIES.

The National Supply Co.
ELGIN, ILL.

Mention Bee Journal when writing.



BEE-SUPPLIES

We manufacture everything needed in the Apiary, and carry a large stock and greatest variety. We assure you the best goods at

LOWEST PRICES

and our excellent freight facilities enable us to make prompt shipments over 15 different roads, thereby saving you excessive freight charges as well as time and worry in having goods transferred and damaged. We make the

Alternating, Massie, Langstroth and the Dovetail Hives

Our prices are very reasonable, and to convince you of such we will mail you our free illustrated and descriptive catalog and price-list upon request. We want every bee-keeper to have our Catalog. **SPECIAL DISCOUNTS** now. Write to-day.

KRETCHMER MFG. CO., Council Bluffs, Iowa.

Muscatine Produce Co., Muscatine, Iowa.
Trestler Supply Co., 103 S. 11th Street, Lincoln, Neb.
Shugart-Ouran Seed Co., Council Bluffs, Iowa.
T. B. Vallette & Son, Salina, Kan.

Catalogs issued in English or German.

Mention Bee Journal when writing.

FOR SALE

50 Colonies of Italian and Carniolan Bees in 8-frame hives, all nearly new and all in good condition. One colony, \$5.50; from 5 to 10 colonies, \$5 each. **WM. J. HEALY,**
16A5t MINERAL POINT, WISCONSIN.

Italian Bees for Sale

We can furnish Nuclei and full colonies of Italian Bees (f.o.b. 100 miles west of Chicago by express) at these prices, on Langstroth frames:

FULL COLONIES in 8-frame hives, \$5.50 each; in lots of 5 or more at one time, \$5.25 each. Full colonies in 10-frame hives, \$6 each; in lots of 5 or more at one time, \$5.75 each.

Nuclei (3 frame) with Tested Queen, \$3.25 each; in lots of 5 or more at one time, \$3 each. Nuclei ready for delivery about May 10; Full Colonies any time now. Orders filled in rotation. Address,

GEORGE W. YORK & CO.
334 Dearborn Street, CHICAGO, ILL.

3-Frame Nuclei in MAY,

Strong with brood and bees, with a good Queen—\$2.50 each.

G. W. GATES,
18A2t BARTLETT, TENN.

Bees For Sale

100 colonies of Bees for sale cheap in 10-frame L. hives. All frames are worked out on full sheets of heavy foundation. 100 all-zinc queen-excluding Honey-Boards. Queen and Drone Traps, Smokers, 1 and 2 pound Sections, Hoffman self-spacing Frames, etc.

Address, **G. PROCHNOW,**
18A6t MAYVILLE, WIS.

For Sale Cheap

25 Colonies of Bees.
Address, **T. O'DONNELL,**
546 S. 43d Av., near Colorado Av., CHICAGO, ILL.

Profit in Capons.—The wise farmer, looking to profit, sees more weight in the steer than the bull. Poultrymen are finding that it pays well to raise capons instead of cockerels. What to do with the cockerels has been a problem, as they are hard to fatten. On the market the capon always finds a quicker sale and at nearly double prices than ordinary chickens. A very instructive book on raising capons has just been published by George P. Pilling & Son, of Philadelphia, Pa.



It shows how farmers and poultrymen can easily make a big increase in the revenue of the poultry yard by caponizing. There are instructive chapters on feeding and dressing capons. Readers of the American Bee Journal can obtain a copy of this interesting book by sending to George P. Pilling & Son, Philadelphia, Pa., enclosing a stamp for postage. A full set of capon tools are sold by the above firm for \$2.50. They will send you a set with full directions including book on receipt of price. Please mention the American Bee Journal when writing.

Please mention Bee Journal when writing Advertisers.

Excellent Goods
Lowest Prices

Bee - Supplies

OF ALL KINDS

ESTABLISHED 25 YEARS

We have published **THE AMERICAN BEE-KEEPER** for 16 years (monthly, 50c a year.) The largest and best illustrated magazine of its kind for the price published. Edited by two of the most experienced bee-keepers in America.

Sample copy free.

Our large, illustrated Price-List of Supplies free on application. Address,

The W. T. Falconer Mfg. Co.

JAMESTOWN, N. Y.

Mention Bee Journal when writing.

Honey and Beeswax

CHICAGO, April 20.—There is very little comb honey on the market, and as usual at this season of the year the demand is very limited. There is no change in the prices obtainable from recent quotations. Choice white comb will bring 15c when wanted; other grades are of uncertain value, ranging from 10@14c per pound. Choice white extracted, 6½@7c; amber grades, 5½@6½c. Beeswax, 30c per pound.

R. A. BURNETT & CO.

TOLEDO, Feb. 19.—The market for comb honey has been better for the past two weeks than at any time during the past season. Prices are firm on account of the scarcity. We are getting 15@16c for fancy white clover; 14@15c for No. 1, and 13@14c for amber. Buckwheat, 13c. Extracted honey is in good demand at following prices: White clover in barrels brings 6½@7c; amber, 5½@5¾c; in cans every grade from 1@1½c higher. Beeswax is firm and in good demand at 28 and 30c.

The above are our selling prices, not what we pay. GRIGGS BROS.

INDIANAPOLIS, March 24.—Fancy white clover comb brings 16c; No. 1, 14c; demand exceeds the supply; fancy white western comb brings 14@15c; amber grades in poor demand at 12c. Best grade of extracted honey brings 8½@9c in 60-pound cans; amber, 6c. Good average beeswax sells here for \$33 per 100 pounds.

WALTER S. POWDER.

PHILADELPHIA, April 23.—The season is now so far advanced that there is very little call for comb honey; not enough sales to fix a price. Some little odd lots, parties are selling at the best offers they can get. Extracted honey, for fancy grades, is also low. Medium and low grades are in abundance. We quote: Fancy white, 7@8c; amber, 6@7c; dark, 5@6c.

We are producers of honey and do not handle on commission. WM. A. SELSER.

NEW YORK, March 19.—Demand for comb honey is fair, especially for the better grades, and fancy white is selling at from 14@15c; No. 1, 13c; light amber, 11@12c; no more demand for dark comb honey. Extracted is in good demand, mostly California, at unchanged prices. Beeswax is firm at from 29@31c, according to quality.

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C. H. W. WEBER CINCINNATI
... OHIO ...

Office and Salesrooms, 2146-48 Central Ave. Warehouses, Freeman and Central Aves.

CINCINNATI, April 4.—There is no material change in the honey market since our last report. The demand does not come up to expectations, which, in all probability, is due to the inclement weather of the past month. We continue to quote amber in barrels at 5½@6½c. Fancy white in crates of two 60-lb. cans at 6½@8½c. Choice yellow beeswax 30c, delivered here.

THE FRED W. MUTH CO.

DENVER, Feb. 5.—Owing to the mild weather the demand for honey has not been as good as usual at this time of year. We are quoting strictly No. 1 white alfalfa comb honey at \$3.35 to \$3.75 per case of 24 sections; off grade and light amber at \$3 to \$3.30. White extracted alfalfa in 60-pound cans, 7½@8½c; light amber, 6½@7½c. Beeswax, 24c for clean yellow.

THE COLO. HONEY-PRODUCERS' ASSN.

KANSAS CITY, May 5.—Our market is about cleaned up on old comb honey. What there is now left is selling at \$3.25 per case for fancy white. It looks as if there would be a good demand for new honey just as soon as it comes to market. There will be very little comb honey left over this season in this city. Extracted is moving rather slowly at 5¼@6c. Beeswax, 25c per pound.

C. C. CLEMONS & CO.

CINCINNATI, March 7.—The demand for comb honey is slow, prices obtained are the same. Stock on hand seems to be sufficient to supply the wants. Quote fancy white, 14@16c. Amber extracted in barrels, 5½@5¾c; in cans, ¼c more; fancy white clover in 60-lb. cans, 7½@8½c; Southern, equal to white clover in color, from 6½@7c. Bright yellow beeswax, 30c.

C. H. W. WEBER.

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